

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A program stored on a computer-readable medium that causes a computer to execute steps to determine whether a computer-storable expression matches a filter, comprising:

identifying and testing the structural form of the expression;

choosing a transformation model for the filter that is compatible with the structural form of the expression;

evaluating a first code structure representing the expression to determine a value of said expression prior to filtering;

analyzing a second code structure representing the filter to determine the characteristics of the filter,

wherein the second code structure comprises a plurality of filter characteristics corresponding to a plurality of ~~possible~~ structural forms of the first code structure, the plurality of ~~possible~~ structural forms comprising text, trees, and graphs, and

wherein the second code structure applies a filter corresponding to the structural form of the first code structure; and

filtering said evaluated value according to the filter characteristics,

wherein said first code structure is constructed from a plurality of first programming language code structure elements and said second code structure is constructed from a plurality of second programming language code structure elements, each second structure element being symmetrically constructed to correspond to one of said first structure elements, and

wherein evaluating, analyzing and filtering are performed upon explicit invocation of a matching operator, and filtering comprises returning a boolean evaluation result value.

2. (Canceled)
3. (Previously Presented) The computer-readable medium of claim 1, wherein the second code structure includes at least one composition operator acting as a logical connector for logically combining two of said programming language code structure elements, or for inverting the boolean value of at least one of said second programming language code structure elements.
4. (Previously Presented) The computer-readable medium of claim 1, wherein the first code structure includes a first concatenation operator for concatenating two expressions, and the second code structure includes a second concatenation operator for concatenating two filter elements, the first and the second concatenation operators being applied within the first code structure and the second code structure, respectively, in essentially the same manner.
5. (Previously Presented) The computer-readable medium of claim 1, wherein the first and the second code structures include indicator elements indicating a data type, the indicator elements acting as structure constructors in the first code structure and as filter constructors in the second code structure, each of the structure constructors corresponding to a respective one of the filter constructors.
6. (Previously Presented) The computer-readable medium of claim 1, wherein the second code structure includes a test operator having an operand, and wherein filtering comprises testing the occurrence of the value of said operand in the expression.

7. (Previously Presented) The computer-readable medium of claim 1, wherein the second code structure includes an existence operator that matching any element that exists.

8. (Previously Presented) The computer-readable medium of claim 1, wherein the second code structure includes an assignment operator having an operand, to assign a part of the expression to a variable that is identified by said operand.

9. (Previously Presented) The computer-readable medium of claim 1, wherein the second code structure includes a Kleene operator.

10. (Previously Presented) The computer-readable medium of claim 1, wherein the second code structure includes a do operator having two arguments, one argument being a filter and the other argument being an instruction or a sequence of instructions, wherein filtering includes executing the instructions only if the filter is successful.

11. (Previously Presented) The computer-readable medium of claim 1, wherein the filter is a recursive filter enabling filtering of trees.

12. (Previously Presented) The computer-readable medium of claim 1, wherein the filter is a normalized filter.

13. (Previously Presented) The computer-readable medium of claim 1, wherein filtering includes modifying the environment of the computer system, the environment including variables and corresponding values used by the computer system when filtering said value of said expression.

14. (Previously Presented) The computer-readable medium of claim 1, wherein the first code structure and the second code structure are part of an interpreter programming language code.

15. (Previously Presented) The computer-readable medium of claim 1, wherein the first code structure and the second code structure are part of a compiler programming language code.

16-18. (Canceled)